

## METHOD FOR PERFORMING A FREQUENCY CORRECTION OF A WIRELESS DEVICE

### ABSTRACT

5 A method of performing a frequency correction of a radio module is disclosed. The method first takes multiple samples of frequency data during a quiescent portion of the base station transmission, to estimate the amount of frequency correction needed. An embodiment applies the frequency data to a median filter to eliminate invalid data. Next, a new reference frequency is applied  
10 to a radio transceiver in the radio module to provide the frequency correction. If the frequency was corrected by greater than a pre-determined amount, the process performs a large shift frequency correction, including verifying that the first frequency correction was satisfactory and verifying that the radio transceiver is able to receive data after the frequency correction has been performed. If the  
15 frequency was corrected by smaller than a pre-determined amount, the process performs a small shift frequency correction, including updating a total of all frequency corrections made since a stored reference frequency was updated.